

environment enclosure 10 for housing a computer system for use in running embedded applications in severe environments. As is well-known to those skilled in the art, such enclosures 10 are capable of withstanding extreme environmental conditions, such as maximum extremes of shock, vibration, temperature, EMI, humidity, as well as sand, dust, and the like. Such containers are particularly effective in running embedded applications, which are defined as a specific function which is contained within a larger application requiring no human intervention beyond supplying power to the computer (not shown) housed therewithin. For example, embedded applications include but are not limited to, systems and process control, communications, navigation, and surveillance.--

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Please replace the paragraph beginning at page 6, line <sup>20</sup>~~32~~ with the following rewritten paragraph:

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B2 --The computer systems utilized to run such applications typically comprise a plurality of circuit boards or daughter cards, such as 12, that are affixed about a backplane 16 rigidly mounted within the enclosure. In this respect, the backplane is provided with a plurality of connectors 18 for supporting a plurality of circuit cards in a generally parallel, upright relationship. The backplane 16 also supports the power supply (not shown), which is typically located within such enclosure 10, to thus provide power for the computer system to function.--

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Please replace the paragraph beginning at page 7, line <sup>4</sup>~~17~~ with the following rewritten paragraph:

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B3 --To address such problems, there is provided herein a novel communications scheme by which circuit cards can be interconnected to one another to transmit and receive data that

eliminates the foregoing drawbacks. In this respect, there is provided herein an infrared communications scheme utilizing an electrical interface that interconnects the plurality of circuit cards of an embedded computer system to thus enable data to be received and transmitted therebetween. In this respect, each respective one of the plurality of the circuit cards is provided with a dedicated pair of buffered digital transceivers electrically connected to one another that enable data signals to be transmitted and received therebetween.--

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Please replace the paragraph beginning at page <sup>7</sup>8, line <sup>35</sup>15 with the following rewritten paragraph:

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B4 --Advantageously, IrDA standards are ideally recommended for high speed, short range, line of sight, point-to-point cordless data transfer, which are typically utilized in a widespread commercial applications for personal computers, digital cameras, hand-held data collection devices, and the like. A more detailed outline of the standards and protocols designed and developed by the IrDA may be obtained from the Infrared Data Association based in Walnut Creek, California. Alternatively, such data may be obtained via the IrDA's website at <http://www.irda.org/standards/standards.asp>, the teachings of which are expressly incorporated herein by reference.--

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Please replace the paragraph beginning at page 8, line <sup>12</sup>28 with the following rewritten paragraph:

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B5 --As will be appreciated by those skilled in the art, the use of standardized IrDA infrared communications schemes currently can enable data to be received and transmitted at rates up to

four megabytes per second (4 Mbps), which is substantially equivalent, if not faster, than conventional hard-wired systems. It is further contemplated that developments may soon be made which can support data transfer rates in excess of sixteen megabytes per second (16 Mbps).--

Please replace the paragraph beginning at page <sup>9</sup>~~10~~, line <sup>28</sup>~~12~~ with the following rewritten paragraph:

B6 --Fig. 4 depicts a second example of how an IrDA electrical interface may be implemented according to a preferred embodiment of the present invention. As illustrated, first and second modules 60, 62 representing circuit boards are provided that each include two output-transmitting tri-stateable digital buffers, 64 and 68 on first module 60, and 74, 78 of second module 62, and two input or digital receivers 66 and 70 on first module, and 72 and 76 on second module 62. The respective pairs of buffers and receivers 64, 66, and 68, 70 on first module 60 and 72, 74, and 76, 78 on second module 62, are arranged such that each respective output or transmitter element is electrically interconnected to a respective input or receiver element formed on the respective other module.--

Please replace the paragraph beginning at page 10, line <sup>7</sup>~~20~~ with the following rewritten paragraph:

B7 --Control is invoked over each transmitter element pair 44, 50 or 64, 74 or 68, 78 such that they are prevented from transmitting simultaneously and thus contending for access to the same physical line. This control is implemented via the tri-state control input on each transmitter